NOTES FOR CURSOR
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A CURSORY GLANCE

At the Winter Consumer Electronics show Commodore showed a number of possible new products. Note that I said 'possible', not 'probable'. One that was fascinating was the 'touch screen'. With this feature, you are able to simply touch the screen of the Pet to give it commands. For example, imagine a menu of program options displayed on the screen. You touch the box marked 'Edit' and the program immediately goes into a text editing mode. There was an interesting demo at the show which used the 2040 disk and the prototype touch screen Pet. On the screen was a menu of games, and when you touched which game you wanted that program was automatically loaded and run.

It's anybodys guess whether the 'Touch Screen' will ever see the light of day. One rumor I heard was that the entire project was put together for the show in less than two weeks. The hardware is fairly simple: the plastic panel around the front edge of the CRT screen is replaced with a slightly thicker version that has infrared LEDs along the left and bottom edges, with sensors that 'see' the infrared light beams along the top and right edges. So, when you point to the screen, your finger interrupts two light beams, one that goes from the bottom to the top of the screen, and another that goes from left to right. As you can see, that gives the Pet an x-y coordinate that your program can work with. (Things are a little more complicated, since your finger may well interrupt more that one beam of light. In that case, the program probably will choose to interpolate a value.) I first saw this technology demonstrated about six years ago on a much more expensive system. There is no question that such a system can be built-in to a Pet or some other computer. The real question is how many people want it, and what are they willing to pay for the function that it provides.

There were other items at the show that have varying probabilities of being marketed. One was an entirely new 'home computer' (whatever that is) that attaches to your color TV set. It was definitely a prototype, and all I saw it do was flash pretty patterns on the screen. Unofficial word is that if Commodore decides to introduce the color computer that it will be priced 'aggressively'. (If you aren't a marketing person, that means: 'cheap enough to scare Atari'.) Will they or won't they bring out their toy computer? My feeling is that they would be mauled by Atari, and the new color Radio Shack.

Will there be a hand-held Pet in a couple of years? Well, if there isn't, other companies will market 'tiny computers' instead. Have you heard about the new Sharpe hand-held 'calculator' that uses a reasonable subset of Basic? Price will be about 140 dollars. You can buy an adapter that lets you use the Sharpe microcassette unit to save programs. With the Sharpe 'calculator' (and I think that is a gross misuse of the language) you can only look at one line of your program at once.

CURSOR 17 HAS THESE PROGRAMS: (Names ending with '!' use CB2 sound)

COVER17	Stephen Rosset created this flashing rectangle design.
POLICE!	As Chief of Police you try to protect the city against a crime wave. By Kurt Carpenter.
SPOT	Two players compete to stack four markers in a row. Art Carpet wrote this challenging game.
RULER	Kids will enjoy learning how to read a ruler in this educational program. Based on an idea by David Dwyer.
LETTER	Big letters (and numbers) will appear on your Pet screen when you press a key. By Michael Contino.
MERGE	Combine two Basic programs, merging them by line number. (Requires 2040 disk.) By Glen Fisher.
NPACK	Squeeze all the blanks out of your flabby Basic programs. (For New ROMs only.) By Glen Fisher.

MORE ABOUT THE PROGRAMS

POLICE!... You are the Chief of Police of East Flatbush, a town with freeways, streets, and all the businesses of any prosperous town. But there is trouble in East Flatbush: a master criminal is on the loose! Although you have already set roadblocks at all the exits, the town continues to be plundered. Your job is to hunt down the scoundrel and arrest him (or her).

A map of the city shows some of the locations where crimes may be committed: banks [B], a shoe store [S], a candy store [C], traffic lights [L], hazardous locations where accidents may happen [A], and a park where muggings occur. To drive the squad car, use the number pad in the usual way, 8=up, 2=down, 4=left, 6=right, 5=stop. But until you are within one block of the suspect, you cannot see him. Your only clues are the crime reports, as produced by the East Flatbush Police Effectiveness Transmitter (which most of the officers call 'PET' for short). When you spot the criminal, shown as an asterisk [*], he will stop his crime spree and the chase is on. Your object is to trap him between you and a roadblock. You may set up to 7 roadblocks by hitting [SPACE] as you pass a strategic spot. You'll want your CB2 sound connected to fully appreciate this clever little fantasy!

SPOT... This popular game pits two players against each other trying to get four pieces in a row. The board is a rack of seven columns of six squares each. Players take turns selecting a column in which to drop one of their pieces. The piece falls to the lowest empty square of the column. The first player to get four in a row - horizontal, vertical, or diagonal - is the winner. The game can be very challenging, with some unexpected twists as the game progresses. As they say: plan ahead!

RULER... This is a 'skill building' program which teaches little people how to read a ruler that is marked in inches. We realize that the world is going metric, but there are still lots of rulers in the U.S. that use the English system. (Great Britain has many things to be proud of. Their system of measurement isn't one of them!) A ruler (not drawn to scale) is presented on the screen, and you are asked to show on the ruler a line of a certain length. If the line you draw is too short, it is extended to the correct length and the Pet tells you how much too short the line was. Likewise, if the line is too long, it is corrected. Ten of these excercises are presented, and then your score is displayed.

LETTER... Here is another program designed for youngsters. LETTER will draw a big picture of any letter or number that you press. A unique feature of the program is the way that the author used just a few general subroutines to produce various portions of letters.

MERGE... Those who have the 2040 disk system will be able to use this handy utility to combine two Basic programs on disk to make a third file on disk, keeping the line numbers of both input files, (unlike some other so-called merge programs that merely tack one file onto the end of the other). Where a duplicate line number exists, the program reports the fact and copies the line from the first named input file. MERGE shows a dot on the screen for each line of the program that is processed. We use it to place our standard 'framework' code (lines 0-99 and 60000-62099) around user contributed programs.

NPACK... An unfortunate aspect of small computers is the extent to which programs have to be practically unreadable in order to fit in a small space. There are a number of ways to conserve space in a Pet Basic program, such as putting multiple statements on a line when possible. The way that the Microsoft Basic used by the Pet works is that all of the Basic 'keywords' (such as IF, PRINT, GOSUB, etc.) are converted to 'tokens', each of which is unique, and stored in only one character (or 'byte', if you want to sound like a computer science type). As a result, you don't have to have any blanks between tokens in Pet Basic, and that fact lets you save quite a bit of space. But taking spaces out by hand is painful at best, and pretty boring.

This program removes all blanks from a Basic program (except those within quotes or in remarks). To use it, run NPACK, which loads machine code into the second cassette buffer. Then load any Basic program and type SYS(826), which tells the Pet to go to location 826 (decimal) and execute the machine language program, and then return control of the machine to you. Please note: NPACK works only with new ROMS. If you have old ROMS use PACK from Cursor #6 for January 1979.